



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|-----------------------|---------------------|------------------|
| 10/766,221 | 01/28/2004 | Stanley Kin Sui Cheng | 137.12 | 2900 |

30480 7590 09/22/2005

EDWARD S. SHERMAN, ESQ.
3554 ROUND BARN BLVD.
SUITE 303
SANTA ROSA, CA 95403

EXAMINER

GROSSO, HARRY A

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3727

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/766,221

Applicant(s)

CHENG ET AL.

Examiner

Harry A. Grosso

Art Unit

3727

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 12-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/14/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-11, drawn to a dual wall cooking vessel, classified in class 220, subclass 573.1.
 - II. Claim 12-21, drawn to a method of forming the cooking vessel, classified in class 29, subclass 505.
2. Inventions Group II and Group I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the cooking vessel could be made by other processes such as a drawing process.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Mr. Edward Sherman on August 23, 2005 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-11. Affirmation of this election must be made by applicant in replying to this Office action. Claims 12-21 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections

5. Claims 1 and 3 are objected to because of the following informalities: Claim 1 has the word vessels in the seventh line and it appears the word should be vessel. Claim 3 has the word matting in the third line. It is believed the word intended is mating but this is not clear. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 6 recites the limitation "the two or more layers" in line1. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 7 recites the limitation "the copper sheet and the aluminum layers" in lines 2 and 3. There is insufficient antecedent basis for this limitation in the claim. The claim is dependent on claim 1. It appears it should be dependent on claim 6 and will be treated as such for purposes of examining the application.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 2, 5, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Lanigan et al (3,837,330).
12. Regarding claims 1, 2, 10 and 11, Lanigan et al discloses a dual wall vessel capable of being used as a cooking vessel with a stainless steel inner vessel (11, Figures 1-2, column 3, lines 10-12 and 20-21), a stainless steel outer vessel (12) and a thermally conductive medium made of aluminum (13, column 3, lines 30-31). The thermally conductive medium extends over the bottoms of the inner and outer vessels and upward to partially fill the void between the vessels.
13. Regarding claim 2, Lanigan et al discloses the inner and outer rims are in contact and are welded together to form a hermitic cavity (column 3, lines 23-25)
14. Claims 1, 5, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Eide (GB 2 034 173 A, June 4, 1980).
15. Eide discloses a dual wall vessel capable of being used as a cooking vessel with a stainless steel inner vessel (12, Figures 8-9, page 3, lines 5-6), a stainless steel outer vessel (11) and a thermally conductive medium made of aluminum (10). The thermally conductive medium extends over the bottoms of the inner and outer vessels and upward to partially fill the void between the vessels.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lanigan et al in view of Kuhn (4,790,292). Lanigan et al discloses the cooking vessel of claim 2 with a lid (column 3, lines 15-17) but does not teach forming the rim of the vessel to receive the mating edge of the lid to form a waterless cooking vessel. Kuhn discloses a dual wall cooking vessel with the inner vessel having a rim that flairs outward and in a vertical direction with a concave upward facing portion (10, 11, Figures 1-2, column 3 line 43 to column 4, line 6) and a lid (20) which mates with the rim to make waterless cooking possible. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the use of an inner vessel having a rim that flairs outward and in a vertical direction with a concave upward facing portion and a lid which mates with the rim as disclosed by Kuhn in the cooking vessel disclosed by Lanigan et al to make waterless cooking possible.

18. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lanigan et al in view of Groll (6,267,830).

19. Regarding claim 6, Lanigan et al discloses the cooking vessel of claim 5 but does not teach the thermally conductive material comprises a copper sheet between two or more layers of aluminum. Groll discloses a cooking vessel with stainless steel inner and outer vessels and a thermally conductive layer comprising a sheet of copper between two layers of aluminum (2, 4, Figure 1, column 3, line 65 to column 4, line 4) to take advantage of the thermal conductivity of the copper while using the aluminum to bond the copper to the stainless steel. It would have been obvious to one of ordinary skill in

Art Unit: 3727

the art at the time the invention was made to have incorporated the use of a thermally conductive layer comprising a sheet of copper between two layers of aluminum as disclosed by Groll in the cooking vessel disclosed by Lanigan et al to take advantage of the thermal conductivity of the copper while using the aluminum to bond the copper to the stainless steel.

20. Regarding claim 8, Groll discloses the aluminum layers have a combined thickness of at least about 3 mm. (column 5, lines 2-8)

21. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lanigan et al and Groll as applied to claim 6 above, and further in view of Kim (2003/0160053 A1, August 28, 2003). The cooking vessel of claim 6 is disclosed but neither Lanigan et al nor Groll teaches the use of a perforated copper sheet. Kim discloses a cooking vessel with a thermally conductive layer comprising a perforated copper sheet (9, Figures 1-3, paragraph 0029) between two layers of aluminum (9, 11, paragraph 0033) and the aluminum layers extend through the perforations to form a firm connected structure (paragraphs 0053, 0054). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the use of a thermally conductive layer comprising a perforated copper sheet between two layers of aluminum with the aluminum layers extend through the perforations as disclosed by Kim in the cooking vessel disclosed in claim 6 to form a firm connected structure.

22. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lanigan et al in view of Ulam (4,646,935). Lanigan et al discloses the cooking vessel of claim 1 but does not teach the use of a thermally conductive material comprising a copper sheet

Art Unit: 3727

interposed by two laminated sheets of aluminum. Ulam discloses a cooking vessel with inner and outer stainless steel vessels (40, 21, Figure 3) and a thermally conductive layer comprising a copper sheet (30) interposed by a laminate of an aluminum alloy (33, 34, column 3, lines 19-25) which is surrounded by two layers of pure aluminum (35, 36, 37, 38), which would be softer than the alloy, the laminate being a commercially available product. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the use of a thermally conductive layer comprising a copper sheet interposed by a laminate of an aluminum alloy which is surrounded by two layers of pure aluminum as disclosed by Ulam in the cooking vessel disclosed by Lanigan et al to take advantage of the thermal conductivity of the copper while using an aluminum laminate that is a commercially available to provide an aluminum layer to bond the copper to the steel.

23. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eide in view of Groll (6,267,830).

24. Regarding claim 6, Eide discloses the cooking vessel of claim 5 but does not teach the thermally conductive material comprises a copper sheet between two or more layers of aluminum. Groll discloses a cooking vessel with stainless steel inner and outer vessels and a thermally conductive layer comprising a sheet of copper between two layers of aluminum (2, 4, Figure 1, column 3, line 65 to column 4, line 4) to take advantage of the thermal conductivity of the copper while using the aluminum to bond the copper to the stainless steel. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the use of a thermally

conductive layer comprising a sheet of copper between two layers of aluminum as disclosed by Groll in the cooking vessel disclosed by Eide to take advantage of the thermal conductivity of the copper while using the aluminum to bond the copper to the stainless steel.

25. Regarding claim 8, Groll discloses the aluminum layers have a combined thickness of at least about 3 mm. (column 5, lines 2-8)

26. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eide and Groll as applied to claim 6 above, and further in view of Kim (2003/0160053 A1, August 28, 2003). The cooking vessel of claim 6 is disclosed but neither Eide nor Groll teaches the use of a perforated copper sheet. Kim discloses a cooking vessel with a thermally conductive layer comprising a perforated copper sheet (9, Figures 1-3, paragraph 0029) between two layers of aluminum (9, 11, paragraph 0033) and the aluminum layers extend through the perforations to form a firm connected structure (paragraphs 0053, 0054). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the use of a thermally conductive layer comprising a perforated copper sheet between two layers of aluminum with the aluminum layers extend through the perforations as disclosed by Kim in the cooking vessel disclosed in claim 6 to form a firm connected structure.

27. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eide in view of Ulam. Eide discloses the cooking vessel of claim 1 but does not teach the use of a thermally conductive material comprising a copper sheet interposed by two laminated sheets of aluminum. Ulam discloses a cooking vessel with inner and outer stainless

Art Unit: 3727

steel vessels (40, 21, Figure 3) and a thermally conductive layer comprising a copper sheet (30) interposed by a laminate of an aluminum alloy (33, 34, column 3, lines 19-25) which is surrounded by two layers of pure aluminum (35, 36, 37, 38), which would be softer than the alloy, the laminate being a commercially available product. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the use of a thermally conductive layer comprising a copper sheet interposed by a laminate of an aluminum alloy which is surrounded by two layers of pure aluminum as disclosed by Ulam in the cooking vessel disclosed by Eide to take advantage of the thermal conductivity of the copper while using an aluminum laminate that is a commercially available to provide an aluminum layer to bond the copper to the steel.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry A. Grosso whose telephone number is 571-272-4539. The examiner can normally be reached on Monday through Thursday from 7am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Newhouse can be reached on 571-272-4544. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300

Art Unit: 3727

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nathan Newhouse
Supervisory Patent Examiner
Art Unit 3727

hag